

CLAIMS:

1. An adjuvant composition which comprises an ionic macromolecule component and a saponin component.
2. A composition according to claim 1, wherein the saponin component is an immunostimulatory complex.
3. A composition according to claim 1, wherein the ionic macromolecule is an ionic polysaccharide.
4. A composition according to claim 3, wherein the ionic polysaccharide is an ionic dextran.
5. A composition according to claim 4, wherein the ionic dextran is DEAE-dextran.
6. A composition according to claim 2, wherein the immunostimulatory complex is a protein-free immunostimulatory complex.
7. A composition according to claim 2, wherein the immunostimulatory complex comprises Quil A, cholesterol and a phospholipid.
8. A composition according to claim 2, wherein the mass ratio of ionic macromolecule component to immunostimulating complex component is in the range of 50 to 300, preferably in the range of 100 to 140.
9. A composition according to claim 8, wherein the mass ratio is about 125.
10. A composition according to claim 1, comprising about 10mg DEAE-dextran and about 80 μ g immunostimulating complex.

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11. A composition according to claim 1, comprising about 100mg DEAE-dextran and about 800 μ g immunostimulating complex.

12. A composition according to claim 1, comprising about 150 mg DEAE-dextran and about 500 μ g immunostimulating complex.

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Av* 13. An immunogenic composition comprising an immunogen and an adjuvant composition, wherein said adjuvant composition is a composition according to any one of claims 1 to 12.

14. An immunogenic composition according to claim 13, wherein said immunogen comprises LHRH.

15. An immunogenic composition according to claim 14, wherein said immunogen comprises an LHRH-diphtheria toxoid conjugate.

16. An immunogenic composition according to claim 15 comprising 5-500 μ g of LHRH-diphtheria toxoid conjugate in 5-500mg ionic polysaccharide and 40-4000 μ g immunostimulating complex.

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Av* 17. A pharmaceutical composition comprising an immunostimulating composition according to any of claims 13 to 16, together with one or more pharmaceutically acceptable carriers and/or diluents.

18. A method of eliciting, in an animal, an effective immune response, said method comprising administering to said animal an effective amount of an immunogenic composition according to any of claims 13 to 16.

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19. Use of an adjuvant composition according to any of claims 1 to 12 in the manufacture of a composition for eliciting an effective immune response in an animal.